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## What is claimed is:

- 1. A titanium oxide having a selected ion chromatogram in which an evolution gas having 28 of a ratio of mass number to electric charge quantity exhibits at least one peak at about 600% or higher, the selected ion chromatogram being measured in a thermogravimetry-mass-spectroscopy.
- 2. The titanium oxide according to claim 1, further having a selected ion chromatogram in which an evolution gas having 14 of a ratio of mass number to electric charge quantity exhibits a peak at about 600°C or higher, the selected ion chromatogram being measured in a thermogravimetry-mass-spectroscopy.
- 3. The titanium oxide according to claim 1, wherein said pack of the evolution gas having 28 of a ratio of mass number to electric charge quantity is exhibited at about 950  $^{\circ}$ C or lower.
- 5. The titanium oxide according to claim 1, further having a selected ion chromatogram in which an evolution gas having 64 of a ratio of mass number to electric charge quantity exhibits a peak at about  $400^{\circ}$  or higher, the selected ion chromatogram being measured in a

thermogravimetry-mass-spectroscopy.

- 6. The titanium oxide according to any one of claims 1 to 5, wherein the selected ion chromatogram is measured under a condition of applying a Channeltron Electron Multiplier voltage of 1000V.
  - 7. The titanium oxide according to any one of claims 1 to 5, wherein the selected ion chromatogram is measured under a condition of applying a Channeltron Electron Multiplier voltage of 1500V.
  - 8. A photocatalyst containing the titanium oxide as claimed in any one of claims 1 to 5 as a catalyst component.
  - A photocatalyst coating composition comprising the titanium oxide as claimed in any one of claims 1 to 5 and a solvent.

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